

IN THE CLAIMS:

1. (Currently amended) A device for reduction of organic sulphur from high sulphur coal, comprising:

 a movable cabinet,

 a tubular furnace enclosed in the cabinet,

 a reactor inside the furnace and including

 a steam heating zone capable of maintaining a temperature in the range of 400
450-500 degree Celsius,

 a promoter zone for heating a promoter mixture of copper-iron turnings in a
ratio of 1:9 therein, the promoter zone being capable of maintaining a temperature in the
range of 950-1100 degree Celsius, and

 a reaction zone for reacting the high sulphur coal with a steam, the reaction
zone being capable of maintaining a temperature in the range of 900-950 degree centigrade,

 wherein the tubular furnace is capable of providing the temperatures required by the
zones of the reactor.

2. (Previously presented) A device as claimed in claim 1 wherein the tubular furnace is
made of Silliminite and insulated by quartz wool.

3. (Withdrawn) A process for removal of organic sulphur from high sulphur coal using
the device as claimed in claim 1 comprising

 heating the promoter zone containing a promoter at a temperature in the range of

1100±50 degree Celsius and the steam zone at a temperature in the range of 450 to 500 degree Celsius,

crushing an input coal to -72 mesh BS and

feeding the crushed coal into the reaction zone,

producing steam in a flask and passing the steam through the reactor,

maintaining the temperature at 900 degree Celsius for about 1 hour, after it attains a temperature of about 900 degree Celsius, passing the gas evolved from the reactor through a series of bubblers containing ammoniacal cadmium chloride solution,

cooling the furnace to room temperature and

discharging a product coke/char.

4. (Withdrawn) A process as claimed in claim 3, wherein the promoter is mixture of copper-iron turnings in the ratio of 1:9.

5. (Withdrawn) A process as claimed in claim 3 further comprising increasing the temperatures in the promoter zone and the reaction zone at a rate of 5 degree Celsius per minute.

6. (Withdrawn) A process as claimed in claim 3 wherein around 80% sulphur from the coal is removed by the process.

7. (Previously presented) A device as claimed in claim 1, wherein the steam heating zone has a length of 17 mm.

8. (Currently amended) A device as claimed in claim 1, wherein the promoter heating zone has a length of 250 ~~205~~ mm.
9. (Previously presented) A device as claimed in claim 1, wherein the reaction zone has a length of 200 mm.
10. (New) A device as claimed in claim 1, wherein the tubular furnace has an outer diameter of 250 mm.
11. (New) A device as claimed in claim 10, wherein the tubular furnace has an internal diameter of 40 mm.
12. (New) A device as claimed in claim 1, wherein the tubular furnace has a length of 650 mm.
13. (New) An apparatus for reduction of an organic sulphur from a high sulphur coal, comprising:
- a movable cabinet,
 - a tubular furnace enclosed in the cabinet,
 - a reactor inside the furnace and including:
 - a flask for producing and passing steam through the reactor;
 - a promoter zone for heating a promoter mixture to a temperature of between 950 to 1100 degree Celsius, the promoter zone comprising a promoter mixture of copper-iron

turnings in a ratio of 1:9; and

a reaction zone comprising the high sulphur coal that can react with the steam passing through the reactor to reduce the organic sulphur from the high sulphur coal;

wherein the furnace heats and maintains:

a steam zone of the reactor at between 400 to 550 degree Celsius;

the promoter zone at between 950 to 1100 degree Celsius; and

the reaction zone at between 900 to 950 degree Celsius.

14. (New) A device according to claim 13, wherein the high sulphur coal to be fed into the reaction zone is 72 mesh.

15. (New) A device according to claim 13, further comprising a series of bubblers containing an ammoniacal cadmium chloride solution.